
Fairbanks North Star Borough School District

Student Assessment Results
for the Fairbanks North Star Borough
School District

2016-17 School Year

Prepared by:
Ellis Ott, Ph.D., Senior Research Analyst
Research & Accountability Department
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EXECUTIVE SUMMARY

This report presents district level results of the Performance Evaluation of Alaska's Schools (PEAKS), Alaska Science Assessment, and Measures of Academic Progress (MAP) taken by Fairbanks North Star Borough School District students during the 2016-17 school year. Further disaggregated results will be available at the district's Data Dashboard:

<https://public.tableau.com/profile/k12northstar#!/>

Notable General Facts:

- On average, students in the district outperform students in the state on standardized assessments.
- District results were higher than the Big 4 for Math, but not for ELA and Science.
- Secondary students showed above national average performance on MAP, with Elementary showing below the national average.
- Consistently less than 50% of students met projected growth between Fall 2016 and Spring 2017 regardless of demographics, grade level, and /or subject.
- Achievement gaps for the MAP and PEAKS showed similar results.
- Growth gaps on the MAP were substantially smaller than achievement gaps on the MAP and PEAKS.

INTRODUCTION

The PEAKS is a summative online assessment that measures the content and skills outlined in Alaska's challenging academic standards that were adopted in 2012. The PEAKS was first administered in Spring 2017 to students in grades 3-10 in the subjects of English Language Arts (ELA) and Math. Overall scores fall into one of four performance levels: Far Below Proficient, Below Proficient, Proficient, and Advanced. These performance levels are not comparable to the proficiency levels of the previous state assessment, the SBA. The 2016-17 results for the PEAKS is reported in terms of proficiency rates (% of scores that are Proficient or Advanced).

The Alaska science summative assessment measures the Alaska Science Grade Level Expectations (GLEs) adopted in 2006 for students in grades 4, 8, and 10. The science assessment was administered in Spring 2017 along with the PEAKS.

The Measures of Academic Progress are computer adaptive achievement tests in Mathematics and Reading administered in the Fall, Winter, and Spring of each school year for students in grades 3-10. Thus, both status measures and growth measures (within the school year) are available. Status results are reported in terms of Normal Curve Equivalent scores (NCEs fit on a normal bell-shaped curve centered at 50, with a standard deviation of 21.06). An NCE converts a national percentile rank (NPR) to a more statistically sound measure that can be averaged and compared over time. Scores above 50 indicate above average performance and scores below 50 indicate below average performance. Growth measurement between the Fall and Spring of 2016-17 will also be reported as a percent of students that met expected growth (based on Fall performance and typical national growth between that Fall and the Spring score).

More information and results from Alaska's assessment system are available from the State of Alaska's Department of Education and Early Development at: <http://www.eed.state.ak.us>.

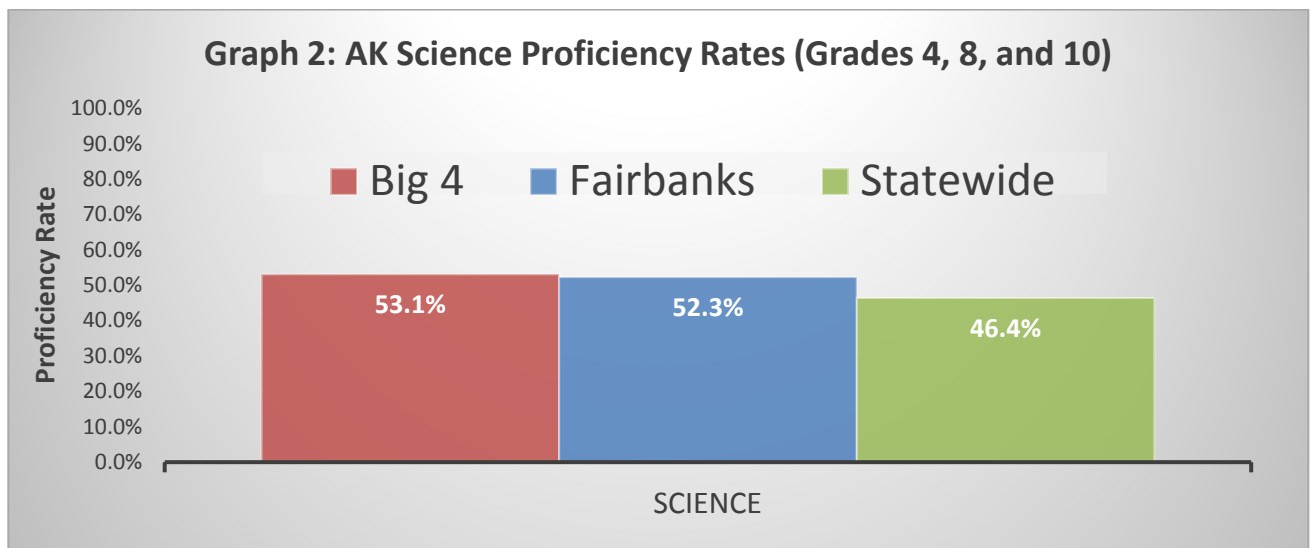
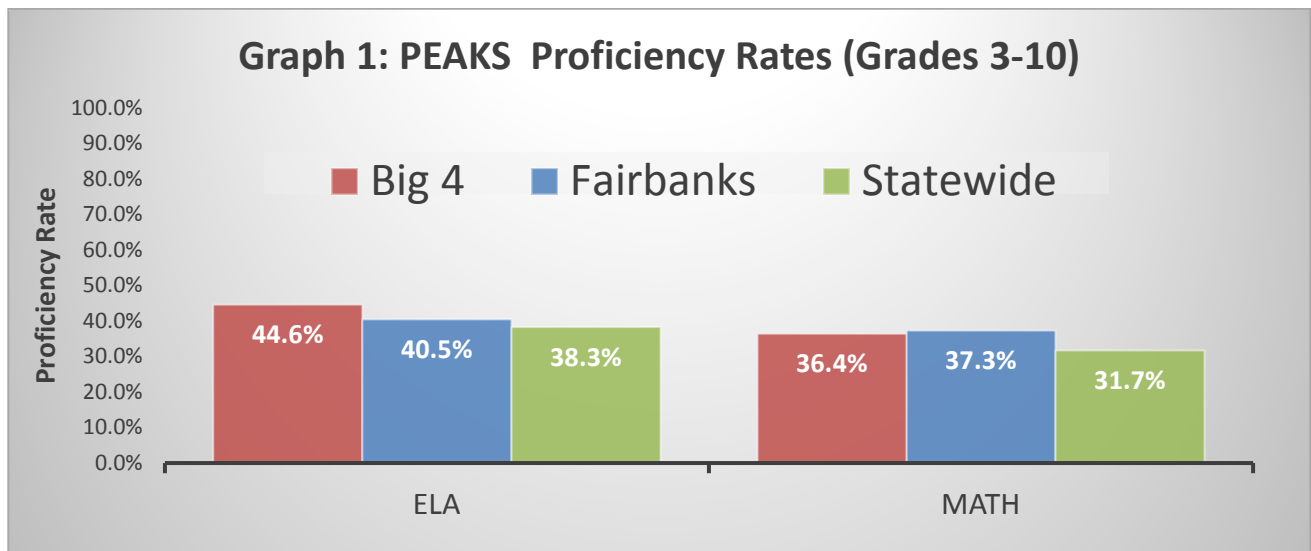
PEAKS AND ALASKA SCIENCE RESULTS

Spring 2017 PEAKS results for all students (grades 3-10):

- 40.5%, and 37.3% of students were proficient in ELA and Math, respectively.
- 52.3% of students were proficient in Science (grades 4, 8, and 10)

RESULTS BY STATE, DISTRICT, BIG-4

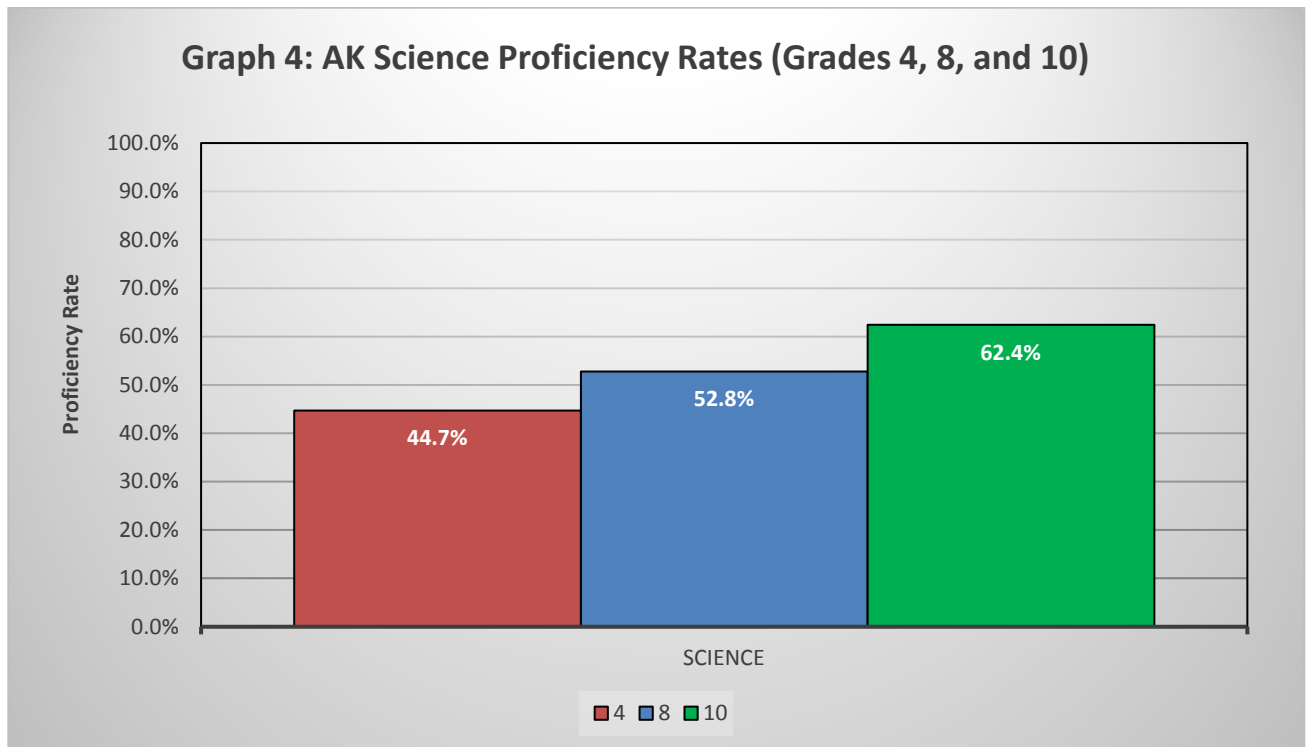
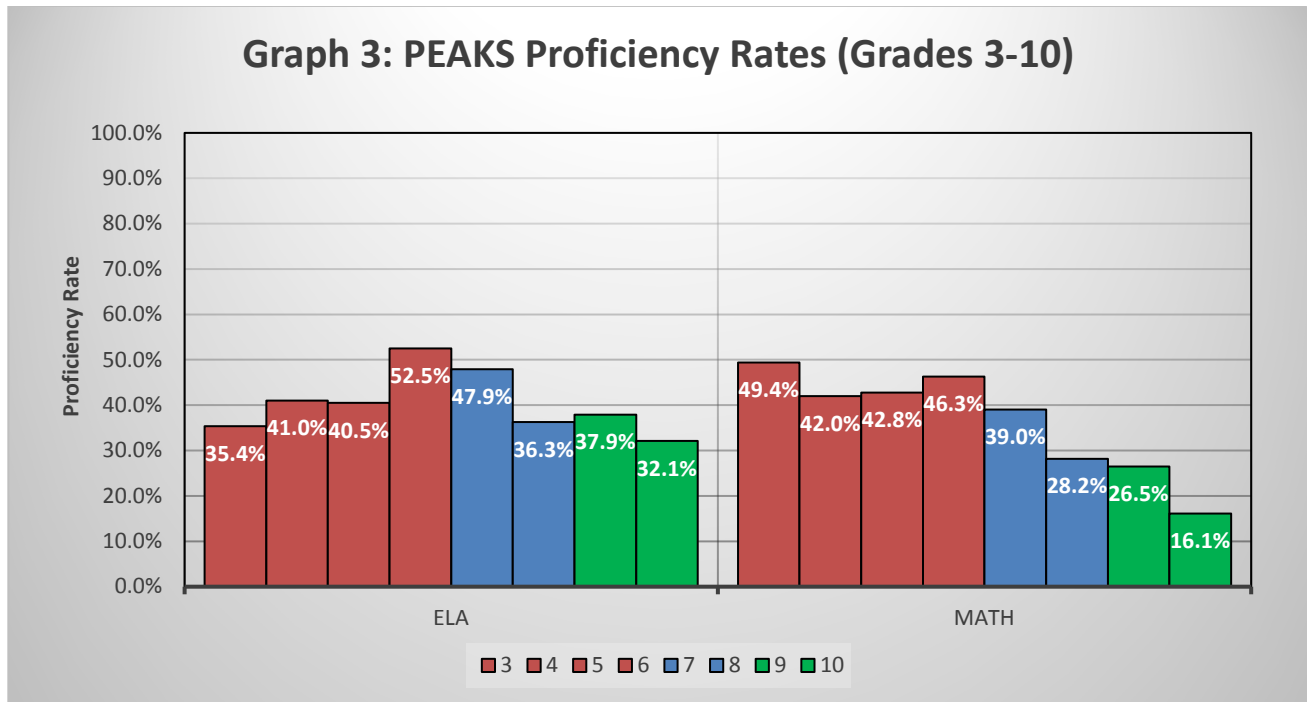
Graphs 1-2 provide summaries of the proficiency rates for the school district, big 4, and statewide on the PEAKS and AK Science assessment.



* Big 4 includes the 4 other largest districts in Alaska: Anchorage, Juneau, Kenai, and Mat-Su

RESULTS BY GRADELEVEL

Graphs 3-4 provide summaries of the proficiency rates by grade level for the school district.

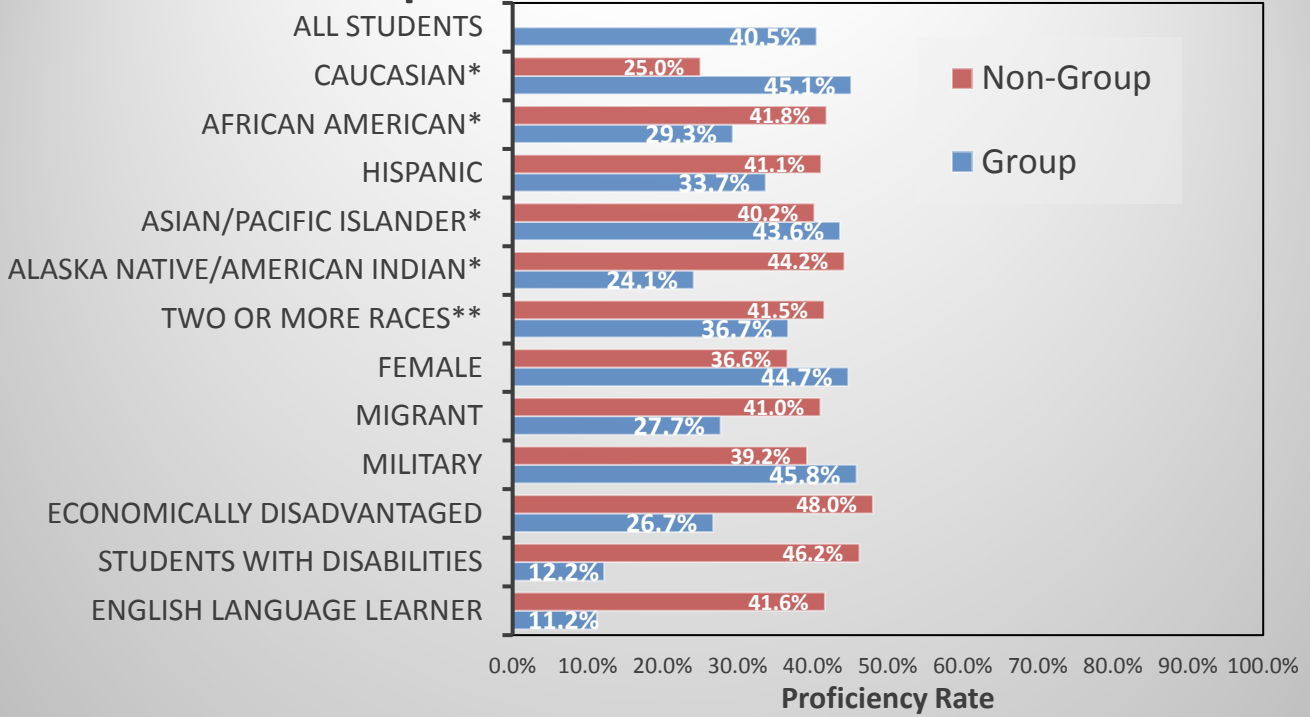


RESULTS BY DEMOGRAPHICS

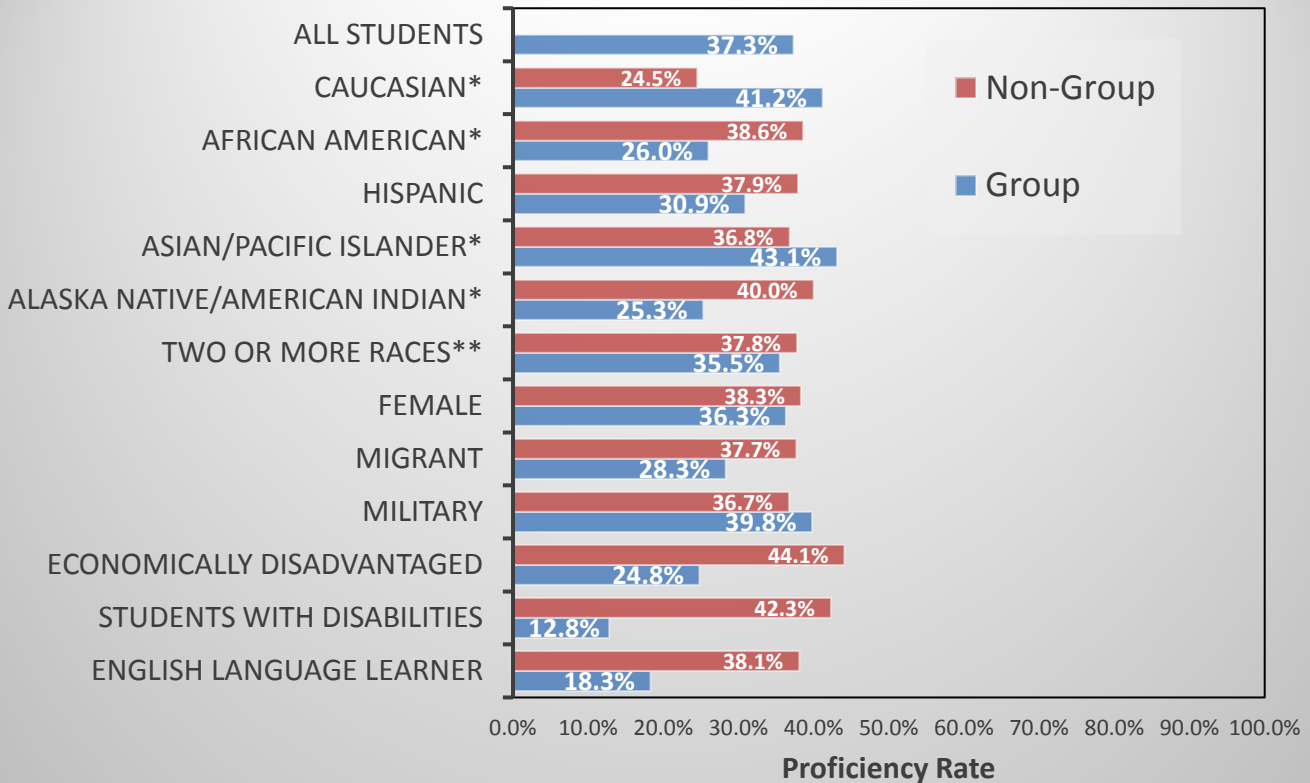
Graphs 5-7 provide ELA, Math, and Science proficiency rates by ethnicity, gender, migrant, military, economic status, disability, and English learner status (grades 3-10 for ELA and 4, 8, and 10 for Science). In the graphs, the term “group” includes all students that belong to the reference group and “non-group” includes all students that do not belong to the reference group. For example, the “non-group” for females is males. Students that are multiple races/ethnicities will be represented in every race and ethnicity identified. The effect size of proficiency rate gaps can be described as fairly small, small, medium, or large (percentage point differences of around 5, 10, 20, and 30, respectively):

- Fairly small gaps were shown with the groups of Asian (Math), Two or More Races (ELA), and Military (ELA).
- Small gaps were shown with the groups of Females (ELA), Migrant, Two or More Races (Science), Hispanic, and African American.
- Medium gaps were shown with the groups of Economic Disadvantage, Caucasian, and Alaska Native/American Indian.
- Large gaps were shown with the groups of English Language Learners and Students with Disabilities.

Graph 5: ELA 2017 Grades 3-10

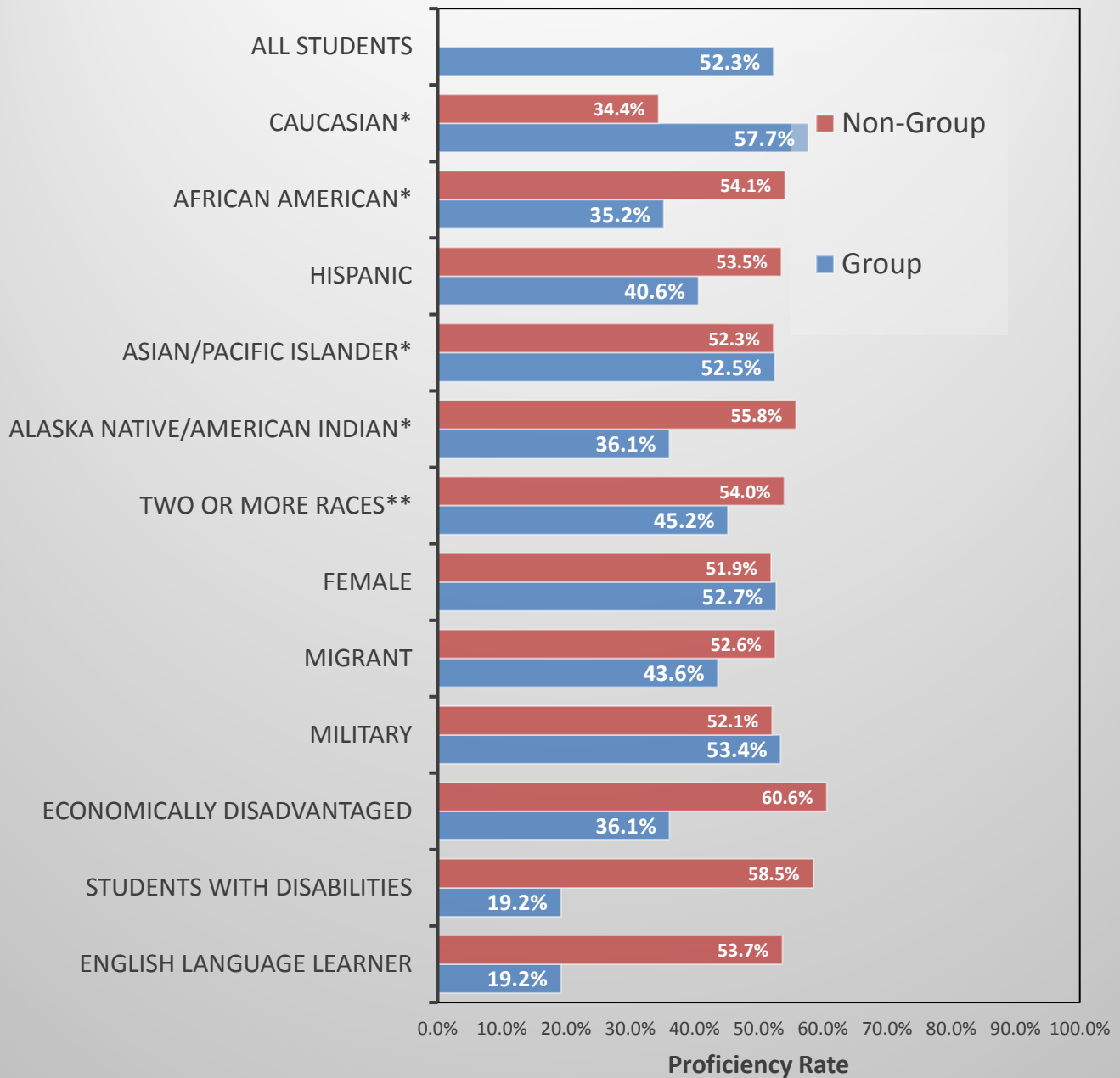


Graph 6: Math 2017 Grades 3-10



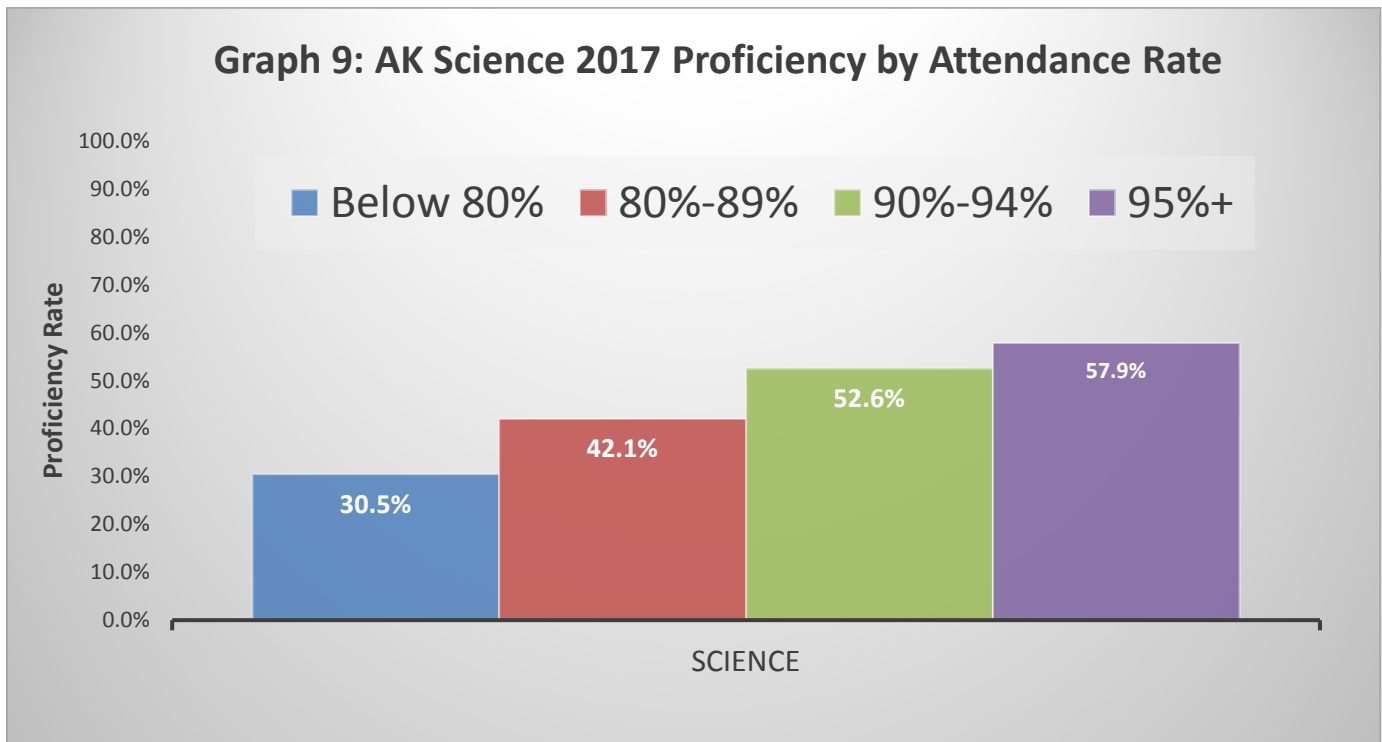
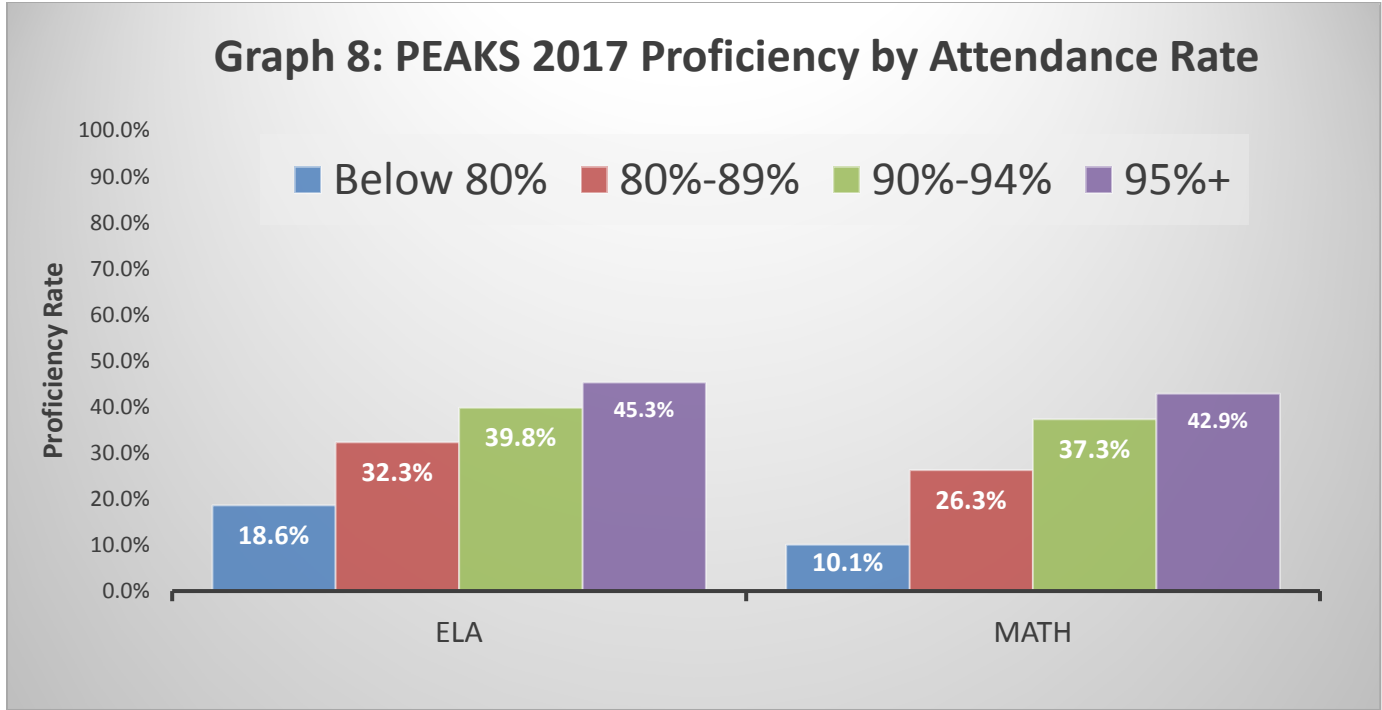
* Includes students that identified an additional race(s) and/or as Hispanic (** includes Hispanic students)

Graph 7: Science 2017 Grades 4, 8, and 10



RESULTS BY ATTENDANCE

Graphs 8-9 provide proficiency rates by attendance groups (less than 80% attendance, 80%-89%, 90%-94%, and more than 95%).

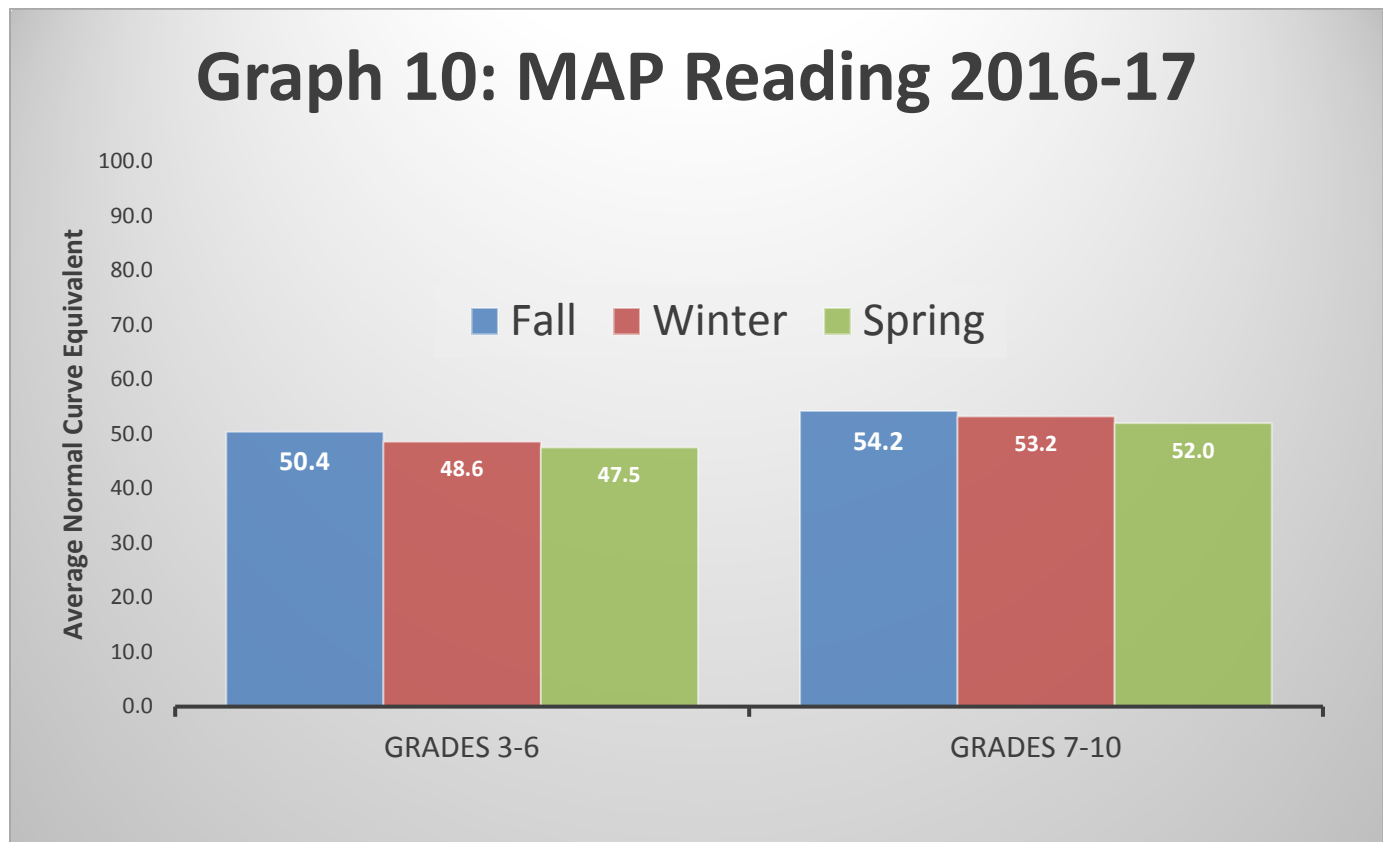


MEASURES OF ACADEMIC PROGRESS RESULTS

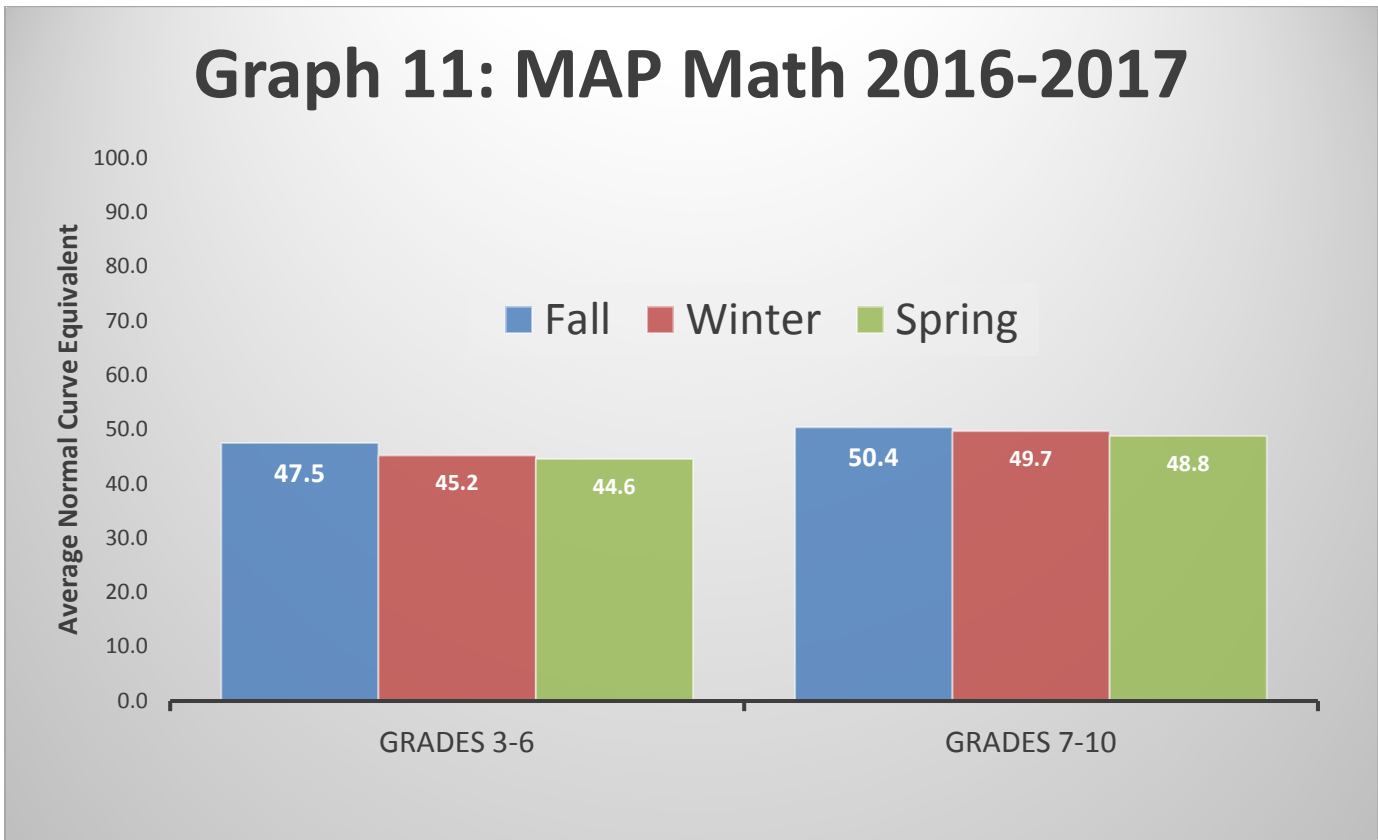
Students in grades 3-10 took the Measures of Academic Progress in the Fall, Winter, and Spring of 2016-2017 and received scores in Reading and Math. The scores are used for instructional decision-making as well as comparing the skill levels of district students with students across the nation.

MAP RESULTS BY GRADE SPAN

Results shown in graphs 10-11 below are reported in terms of Normal Curve Equivalent (NCE) values in the Fall, Winter, and Spring of 2016-17. Although district students tended to score close to the national average (NCE of 50), performance declined from Fall to Spring for each subject and grade span.



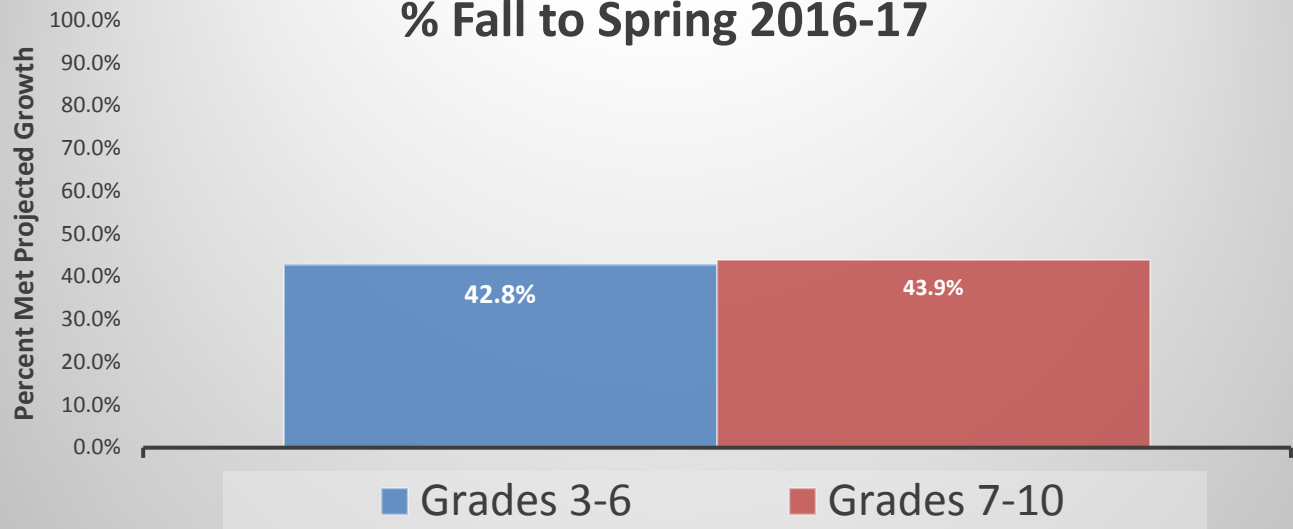
Graph 11: MAP Math 2016-2017



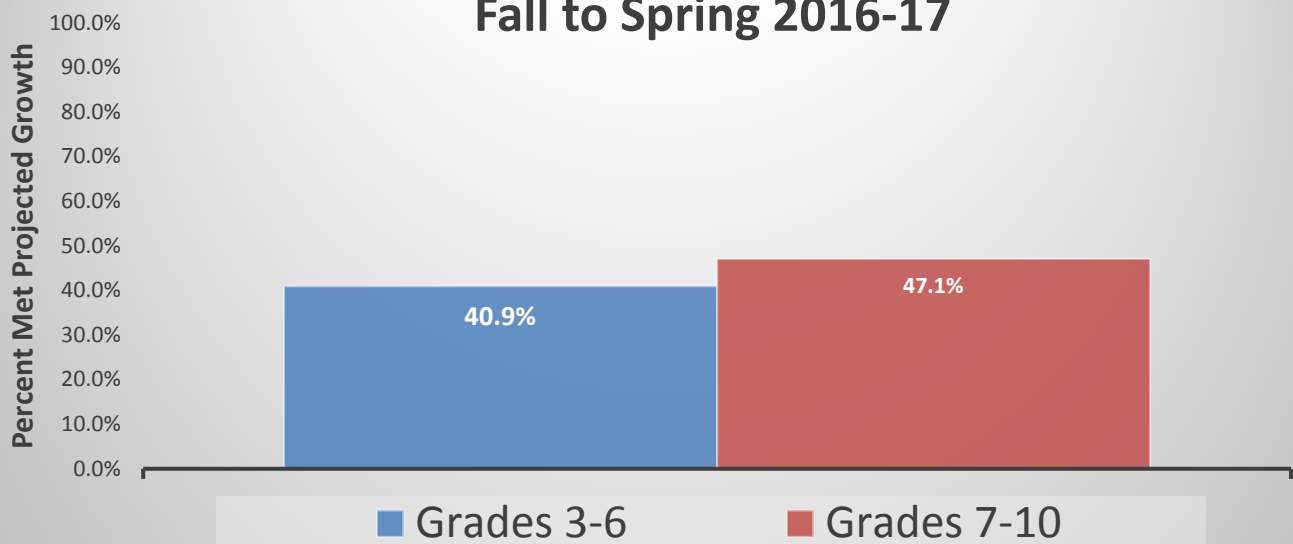
MAP GROWTH RESULTS FALL TO SPRING

Results shown in graphs 12-13 below show projected growth percentages between Fall 2016 and Spring 2017 within the 2016-2017 school year. Each student's Fall to Spring growth projection is based on the student's grade, Fall score, and the test subject (Reading or Math), and represents the median level of growth observed for similar students in the national norming sample. Thus, growth performance at or close to the national average would yield percentages of projected growth around 50%. Since relative performance declined as noted in graphs 10-11, most figures in graphs 12-13 show less than 50% of students meeting projected growth.

**Graph 12: MAP Reading Met Projected Growth
% Fall to Spring 2016-17**



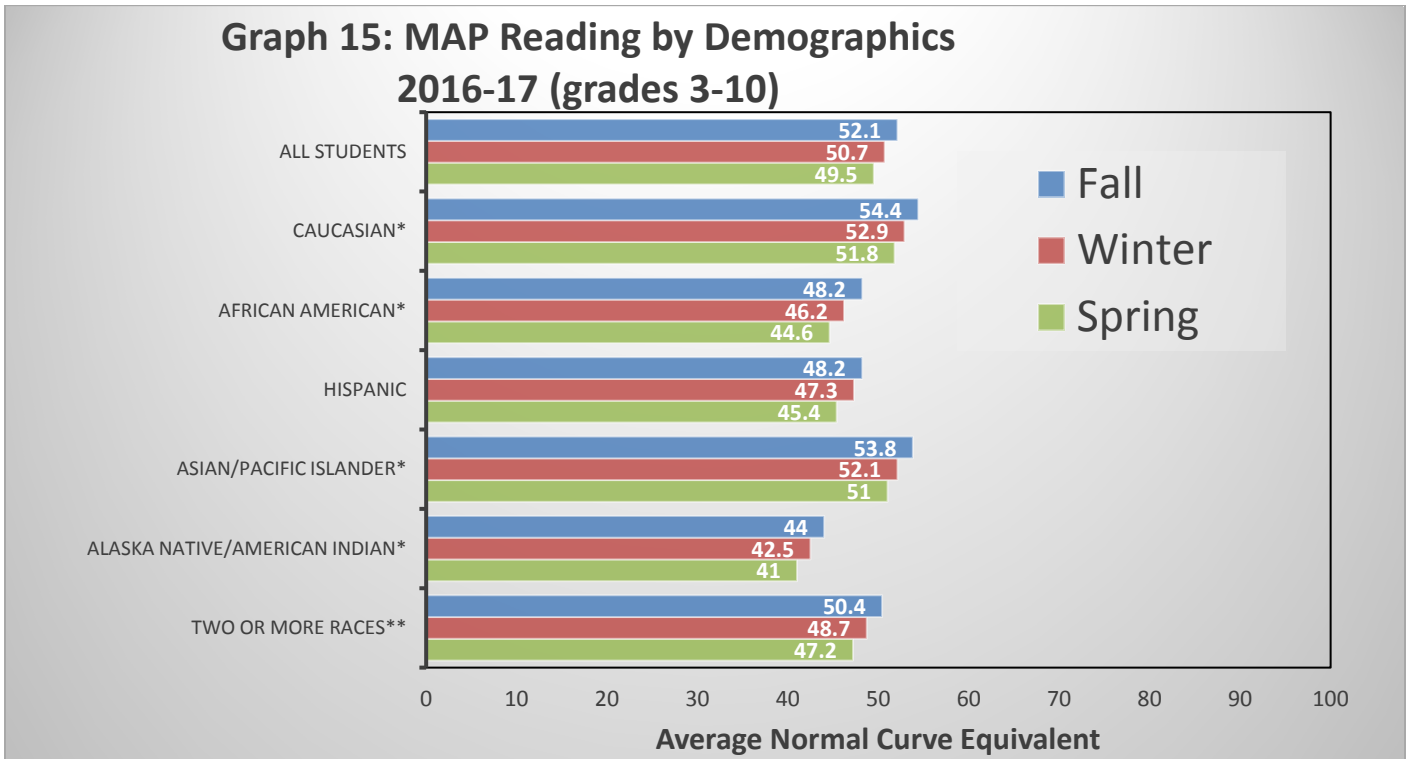
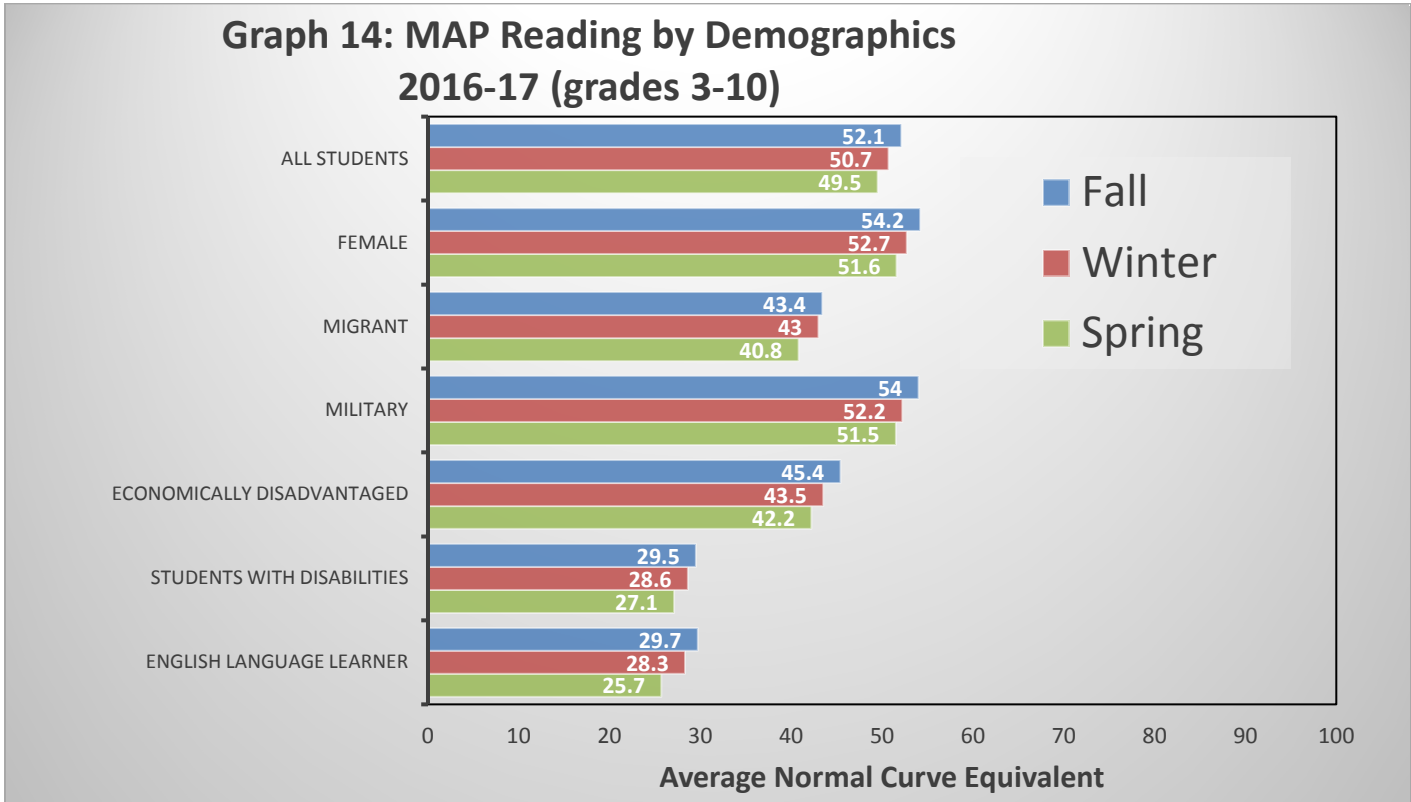
**Graph 13: MAP Math Met Projected Growth %
Fall to Spring 2016-17**



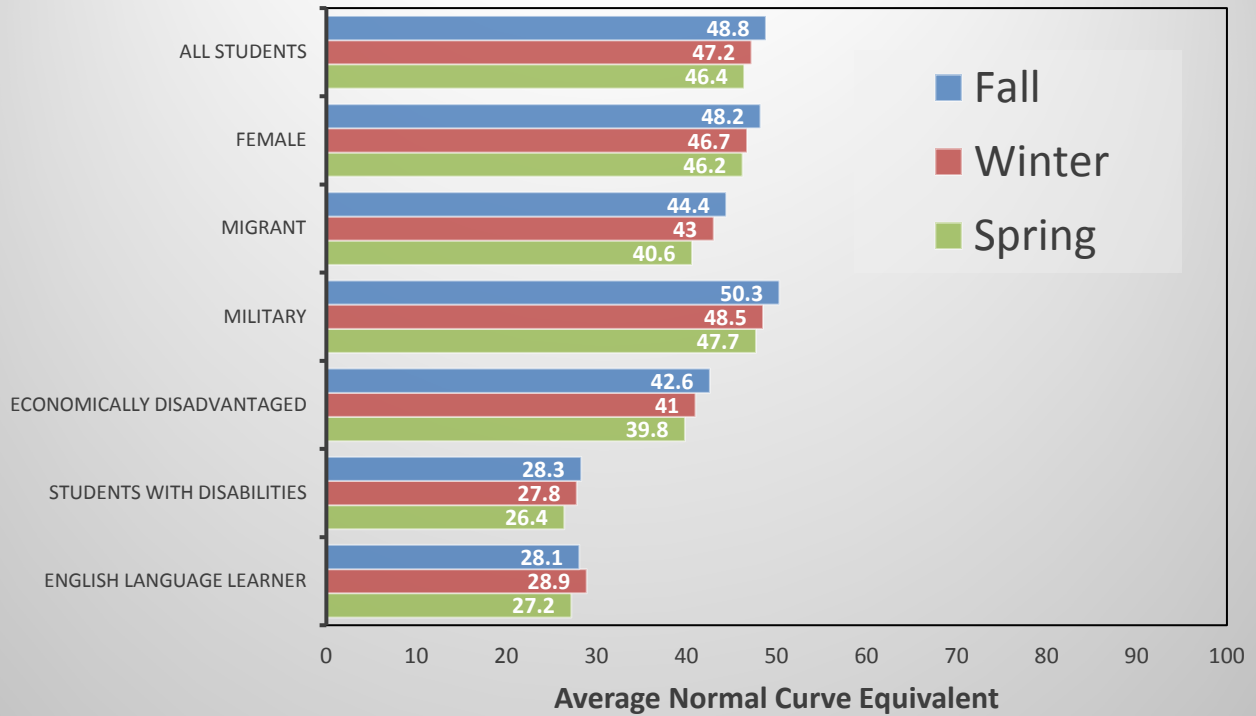
MAP RESULTS BY DEMOGRAPHICS

Graphs 14-17 provide Reading, and Math average NCEs by race/ethnicity, gender, migrant, military, economic status, disability, and English learner status (grades 3-10). Students that are multiple races/ethnicities will be represented in every race and ethnicity identified. Effect sizes were similar to the

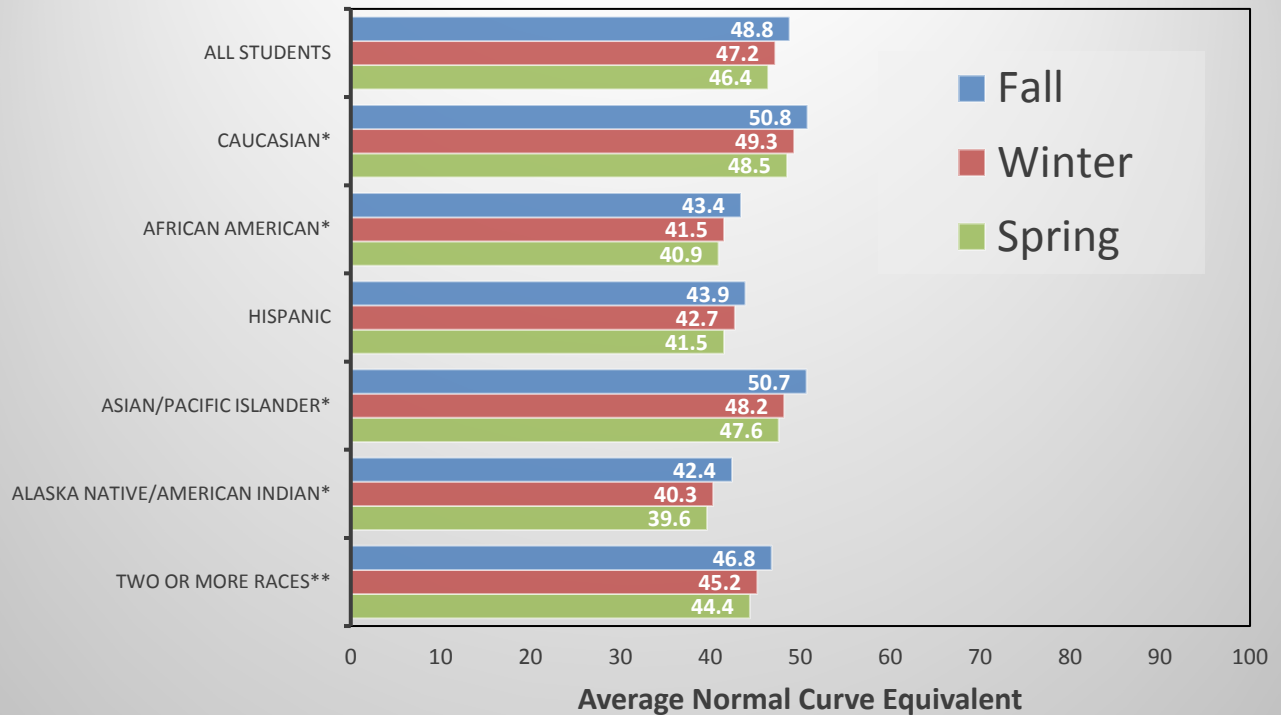
PEAKS, with a few groups showing smaller effect sizes (AK Native, Caucasian*, and Economic Disadvantaged-Math showing small gaps instead of medium).



**Graph 16: MAP Math by Demographics
2016-17 (grades 3-10)**

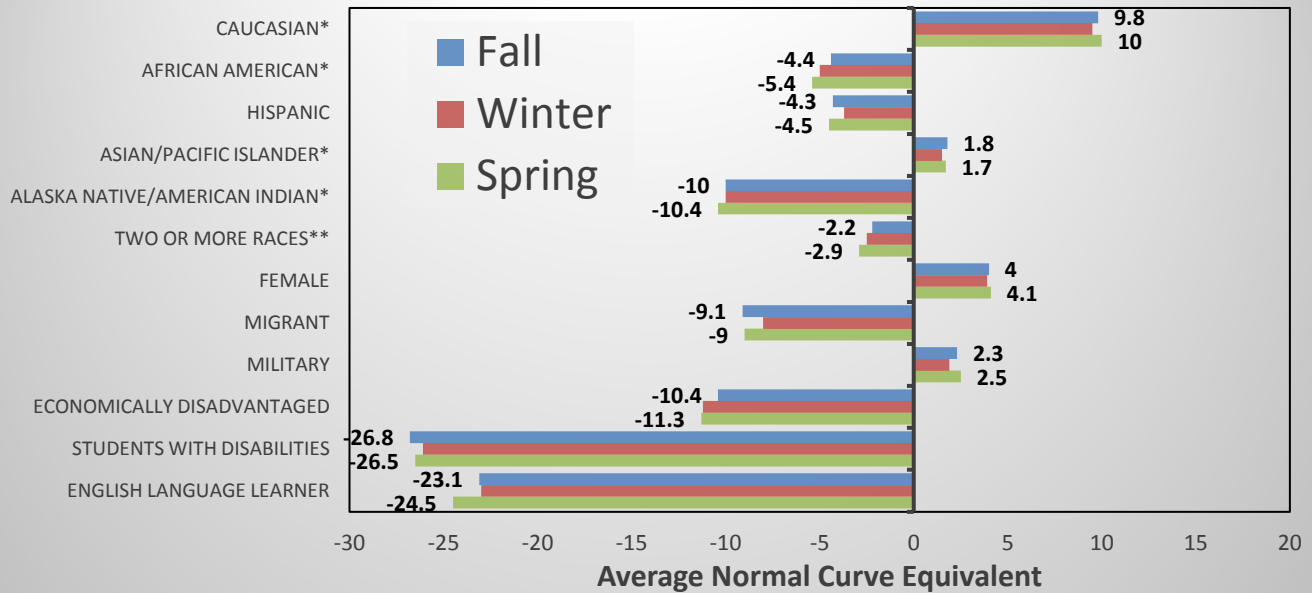


**Graph 17: MAP Math by Demographics
2016-17 (grades 3-10)**

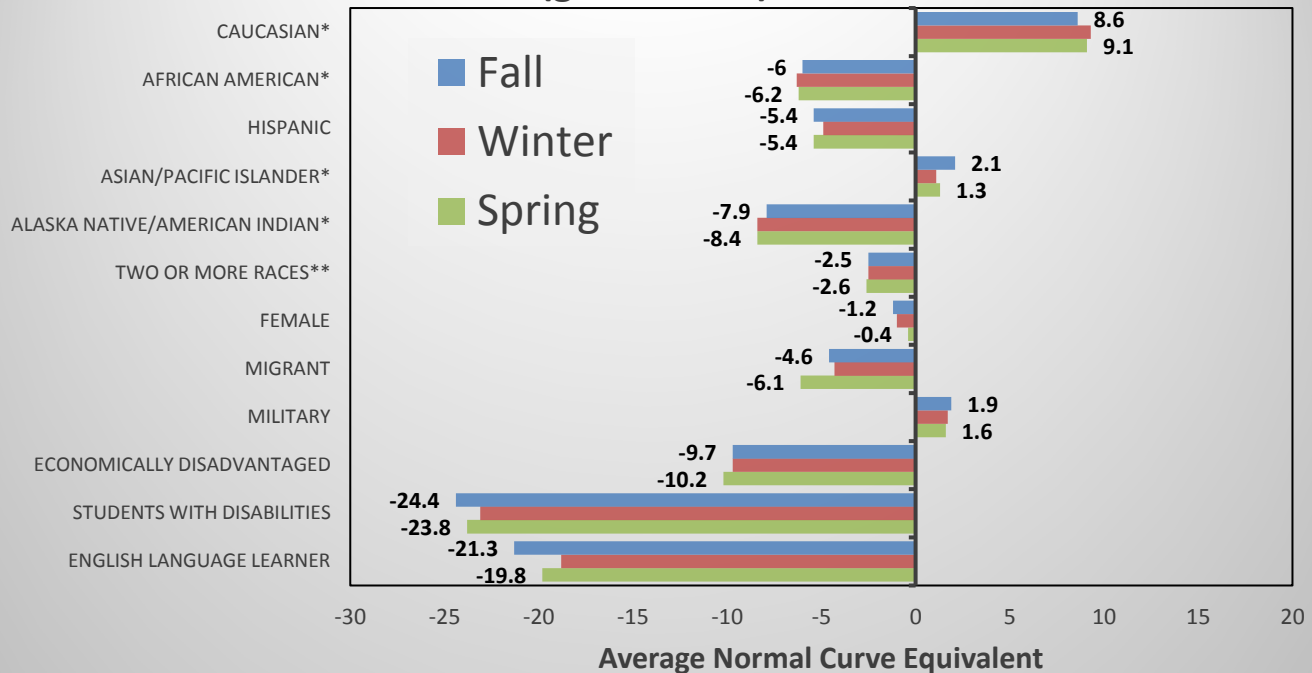


Graphs 18-19 provide the achievement gaps by demographics and term which are based on the performance of a given group minus the performance of all other students (for example, females as compared to males, military as compared to non-military).

**Graph 18: MAP Reading Gaps by Term
2016-17 (grades 3-10)**

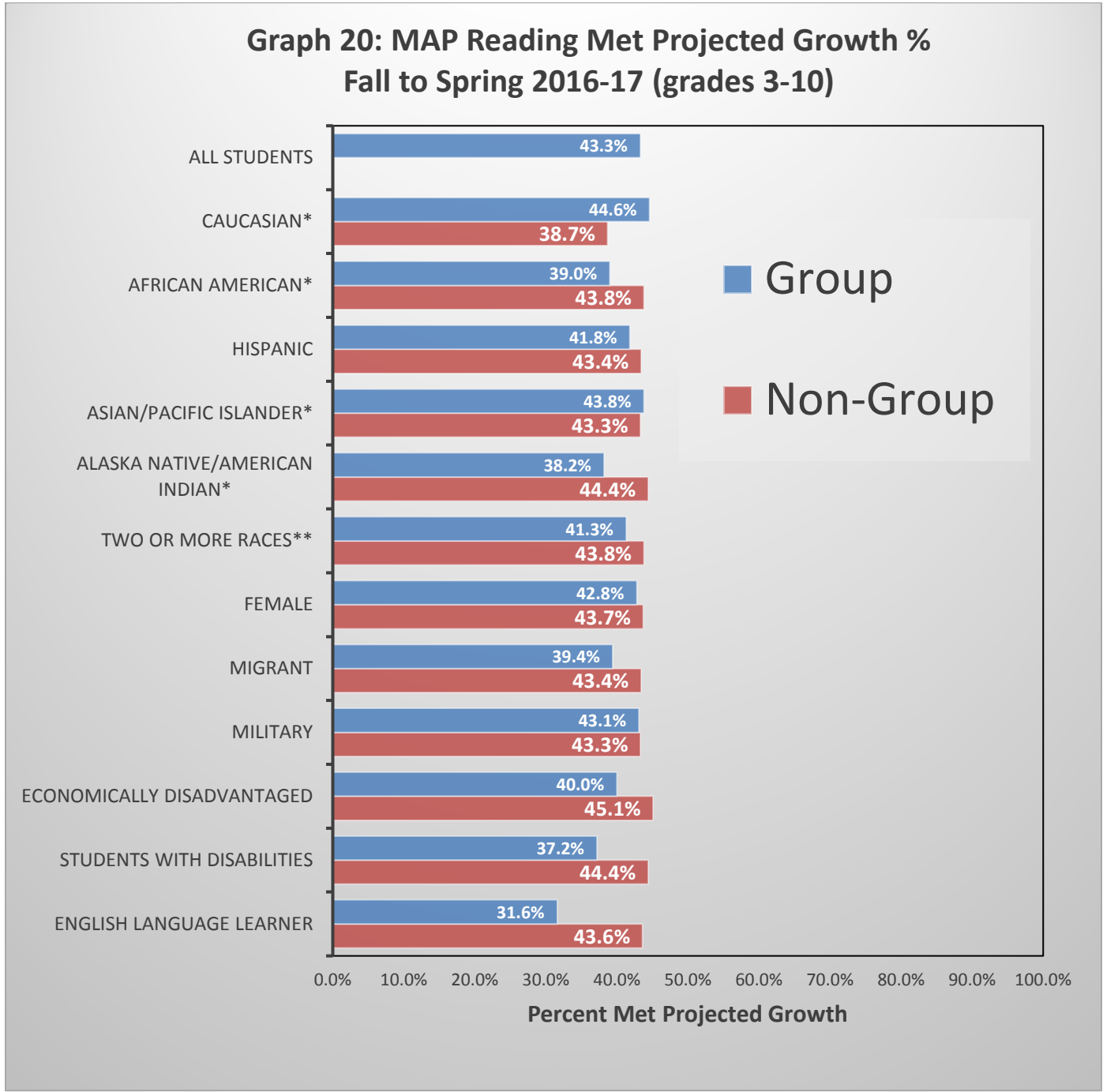


**Graph 19: MAP Math Gaps by Term
2016-17 (grades 3-10)**

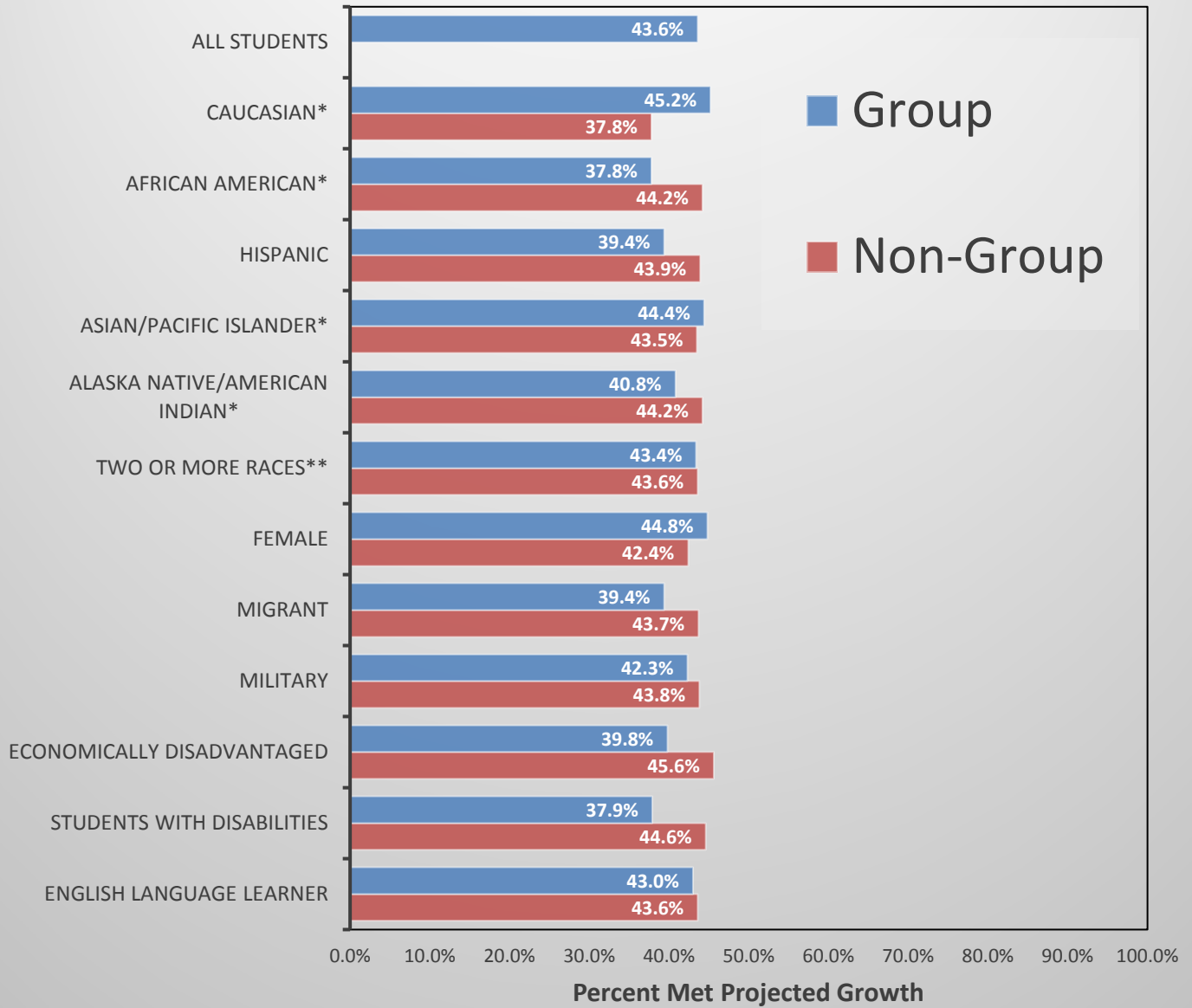


MAP GROWTH RESULTS FALL TO SPRING BY DEMOGRAPHICS

Graphs 20-21 provide Reading and Math projected growth percentages between Fall 2016 and Spring 2017 by race/ethnicity, gender, migrant, military, economic status, disability, and English learner status (grades 3-10). Effect sizes based on growth gaps by demographics were consistently and substantially smaller than achievement gaps for MAP and PEAKS assessments.



**Graph 21: MAP Math Met Projected Growth %
Fall to Spring 2016-17 (grades 3-10)**



CONCLUSION

To summarize the findings of this report, consider the following questions:

1. **How does the district perform relative to the state, nation, and “Big Four” (Anchorage, Juneau, Kenai, Mat-Su)?**

For most assessments, district students outperform state students, and are competitive with “Big Four” and national students. For the PEAKS, district results are better than for the state in every subject and grade level, and below the average performance for the “Big 4” with the exception of Math. For the MAP, district results are above the national average for Secondary (grades 7-10) with the exception of Winter and Spring Math, and below the national average for Elementary (grades 3-6) with the exception of Fall Reading. District results have tended to be competitive with the “Big 4” with some years showing higher performance and other years showing lower performance.

2. **How does the district perform with growth?**

Growth can be reviewed with the MAP in 2016-17. Results indicate that districts students are showing below average growth for both subjects and grade spans. Consistently less than 50% of district students achieving projected growth between the Fall of 2016 and Spring of 2017. Below average growth in Reading and Math is also indicated with the majority of demographics groups, with few exceptions, such as the Fall Math scores for Caucasian* and Asian/Pacific Islander.

3. **How does the district perform relative to achievement gaps?**

Achievement gaps vary by race/ethnicity, gender, migrant, military, economic status, disability, and English Language learner status across the PEAKS and MAP. A general trend for achievement gaps amongst the assessments was shown for the groups:

- Fairly small gaps were shown with the groups of Two or More Races (ELA), and Military (ELA).
- Small gaps were shown with the groups of Females (ELA), Migrant, Two or More Races (Science), Hispanic, and African American.
- Medium gaps were shown with the groups of Economic Disadvantage, Caucasian, and Alaska Native/American Indian (Gaps were small and very close to medium for the MAP assessment).
- Large gaps were shown with the groups of English Language Learners and Students with Disabilities.

4. **How does the district perform relative to growth gaps?**

Growth gaps vary by race/ethnicity, gender, migrant, military, economic status, disability, and English Language learner status for the MAP. Growth gaps on the MAP were shown to be consistently and substantially smaller than achievement gaps on the MAP and PEAKS. A general trend for growth gaps was shown for the groups:

- Fairly small gaps were shown with the groups of Caucasian, African American, Hispanic (Math), AK Native/American Indian (Reading), Migrant, Economic Disadvantage, and Students with Disabilities.
- Small gaps were shown with the groups of English Language Learners in Reading (with a non-significant Math gap).

- There were neither medium nor large gaps.

In summary, the district consistently performs well versus the state and is competitive with the “Big Four” and nation. Achievement gaps range from “fairly small” to “large” in size and are similar in the PEAKS and MAP assessment with a few exceptions with smaller effect sizes for the MAP. Growth results show consistently less than 50% of students achieving projected growth which matches the decrease in average NCEs between the Fall, Winter, and Spring of 2016-17. Growth gaps on the MAP were shown to be significantly smaller than achievement gaps, but ranged between fairly small and small.